

CLAIMS

1. A dental hygiene device comprising
a cup member holding a tooth polishing material,
said cup member having a bottom including an outwardly
projecting attachment member that enables the device to be attached
and detached to a suction tube adapted to be inserted into the mouth
of a patient during polishing of the patient's teeth.
2. The dental hygiene device of Claim 1 where the device is molded
from a plastic.
3. The dental hygiene device of Claim 1 where the attachment
member comprises a pair of fingers of sufficient length and spaced
apart a predetermined distance so that upon inserting the tube
between the fingers the device is held securely to the tube during
polishing of the patient's teeth.
4. The dental hygiene device of Claim 1 where the cup member has
an open top covered with a removable seal.
5. The dental hygiene device of Claim 1 where the cup member has
a compartment with an open top, said compartment having the
capacity to hold from 0.05 to 0.1 cubic inches of the tooth polishing
material.
6. The dental hygiene device of Claim 5 where the polishing
material is a paste comprising an abrasive material including solid
particulates.

1 7. A dental hygiene device comprising
2 a substantially cylindrical cup member holding a tooth polishing
3 material,
4 said cup member having a compartment with an open top and a
5 closed bottom having an exterior surface from which project a pair of
6 finger elements configured to grasp a suction tube adapted to be
7 inserted into the mouth of a patient during polishing of the patient's
8 teeth,
9 said compartment being filled with a sufficient amount of
10 polishing material to polish the teeth of essentially only a single
11 patient, and
12 a removable seal member covering the open top of the
13 compartment to retain the polishing material in the device until said
14 seal member is removed.

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16 8. The dental hygiene device of Claim 7 where the open top of the
17 cup member has a substantially circular configuration and is at least
18 partially encompassed by a rim that projects outwardly from a side of
19 the cup member.

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21 9. The dental hygiene device of Claim 7 where the compartment has
22 the capacity to hold from 0.05 to 0.1 cubic inches of the tooth
23 polishing material.

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25 10. A dental hygiene device molded from a plastic and comprising
26 a cup member holding a sufficient amount of polishing material
27 to polish the teeth of essentially only a single patient,
28 said cup member having an open top and a closed bottom
29 including an outwardly projecting attachment member that enables the

device to be attached and detached to a suction tube adapted to be inserted into the mouth of a patient during polishing of the patient's teeth, and

a removable seal member covering the open top to retain the polishing material in the cup member until the seal member is removed.

11. The dental hygiene device of Claim 10 where the attachment member comprises a pair of finger elements of sufficient length and spaced apart a predetermined distance so that upon inserting the tube between the finger elements the device is held securely to the tube during polishing of the patient's teeth.

12. The dental hygiene device of Claim 11 where the finger elements are centrally located, are substantially parallel, and are substantially parallel to a longitudinal axis of the cup member,

said finger elements merging at a base member connected to the bottom and forming an open bite having a substantially circular configuration having a diameter slightly less than a diameter of the suction tube,

said finger elements having inner edges tapering outward from the open bite to terminate at ends spaced apart a distance slightly greater than the diameter of the suction tube.

13. The dental hygiene device of Claim 12 where the cup member has a compartment with an open top, said compartment having the capacity to hold from 0.05 to 0.1 cubic inches of the tooth polishing material.

1 14. A dental hygiene device comprising
2 a cup member adapted to hold a tooth polishing material,
3 said cup member having a closed bottom including an outwardly
4 projecting attachment member that enables the device to be attached
5 and detached to a suction tube adapted to be inserted into the mouth
6 of a patient during polishing of the patient's teeth.

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8 15. A dental hygiene device molded from a plastic material and
9 comprising

10 a cup member having a substantially hollow cylindrical
11 configuration with an open top, a closed bottom wall, and a side wall
12 connecting the top and bottom wall,

13 said bottom wall having an exterior surface from which projects a
14 pair of substantially parallel finger elements that are centrally located
15 and are substantially parallel to and straddle a longitudinal axis of the
16 cup member,

17 said finger elements merging at a base member connected to the
18 exterior surface and forming an open bite having a substantially
19 circular configuration with a diameter slightly less than a diameter of a
20 suction tube adapted to be inserted into the mouth of a patient during
21 polishing of the patient's teeth,

22 said finger elements having inner edges tapering outward from
23 the open bite to terminate at ends spaced apart a distance slightly
24 greater than the diameter of the suction tube.

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26 16. The dental hygiene device of Claim 15 where the inner edges
27 each tapers outward from the bottom wall at an angle from 1 to 10
28 degrees with respect to the longitudinal axis of the cup member.

1 17. The dental hygiene device of Claim 15 where the diameter of the
2 open bite is substantially 0.25 inch.

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4 18. A method of polishing teeth comprising

5 (a) placing an end of a suction tube into an open mouth of a
6 patient with an adjacent portion of the tube extending from the open
7 mouth,

8 (b) mounting on the adjacent portion of the tube a dental
9 hygiene device including an attachment member that enables the
10 device to be attached and detached to the suction tube and a cup
11 member holding a tooth polishing material, said device positioned on
12 the tube to enable access to the tooth polishing material during
13 polishing of the patient's teeth, and

14 (c) polishing the patient's teeth using a polishing implement
15 connected to a tip of a dental handpiece while suction is concurrently
16 being applied through said tube to withdraw saliva from the patient's
17 mouth, said polishing implement being periodically inserted into the
18 tooth polishing material to collect on the implement a portion of the
19 material in the cup.

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21 19. The method of Claim 18 where the attachment member is
22 substantially in the form of a clip member.

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24 20. A method of polishing teeth where a suction tube is placed into
25 an open mouth of a patient, said tube having a dental hygiene device
26 mounted on the tube nearby the open mouth, said dental hygiene
27 device holding a tooth polishing material that is accessed periodically
28 during polishing of the patient's teeth.